

SUBMITTED: 28Sep68

ENCL: 00

SUB CODE: GC, CC

NO REF SOV: 002

OTHER: 000

Co-d 010

Card 1/2

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademi nauk SSSR  
(Institute of Organic Elemental Compounds of the Academy of Sciences, SSSR)

ZAKHARKIN, L.I.; BILEVICH, K.A.; OKHLOBYSTIN, O.Yu.

Interaction of organomagnesium compounds with alkyl halides in  
a dimethoxyethane solution. Dokl. AN SSSR 152 no.2:338-341  
S '63. (MIRA 16:11)

1. Institut elementoorganicheskikh soedineniy AN SSSR.  
Predstavleno akademikom A.N. Nesmeyanovym.

ACCESSION NR: AP4010038

S/0062/64/000/001/0050/0054

AUTHOR: Kovredov, A. I.; Zakharkin, L. I.

TITLE: Synthesis of 1-chloroborocycloalkanes

SOURCE: AN SSSR. Izvestiya. Ser. khim., no. 1, 1964, 50-54

TOPIC TAGS: 1-chloroborocycloalkane, synthesis, tetraalkyldiborane catalyst, bis-alpha.omega-(1-borocycloalkyl)alkane, boralkane cyclization, 1.5-dichloro-1.5-diborocyclooctane, bis-alpha,omega-(dichlorobor)alkane

ABSTRACT: 1-chloroborocyclopentane, 1-chloroborocyclohexane and 1-chloroborocycloheptane may be synthesized by reacting the appropriate bis-alpha, omega-(1-borocyclo-alkyl)alkane with a 1:1 molar ratio of  $\text{BCl}_3$  at  $140^\circ\text{C}$  in the presence of a catalytic amount of tetraalkyldiborane to form a polymer which depolymerizes on heating in vacuum. On heating  $\text{Cl}_2\text{B}(\text{CH}_2)_n\text{BCl}_2$ , where  $n=4, 5$ , or  $6$ , to  $200-250^\circ\text{C}$ ,  $\text{BCl}_3$  is liberated and the alkane is cyclized to form the corresponding 1-chloroborocycloalkane. Similar treatment of  $\text{Cl}_2\text{B}(\text{CH}_2)_3\text{BCl}_2$  results in  $\text{BCl}_3$

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ACCESSION NR: AP4010038

evolution and the formation of 1,5-dichloro-1,5-diborocyclooctane. Bis-alpha, omega-(1-borocycloalkyl)alkanes, when heated with 1:4 molar ratio of  $\text{BCl}_3$  to 140C in the presence of a catalytic amount of tetraalkyldiborane, are converted to the corresponding bis-alpha, omega-(dichlorobor)alkanes. Orig. art. has: 6 equations.

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademii nauk SSSR  
(Institute of Metallo-organic Compounds Academy of Sciences SSSR)

SUBMITTED: 29Aug63

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: CH

NO REF SOV: 003

OTHER: 000

Cord 2/2

SOROKINA, L.P.; ZAKHARKIN, L.I.

Preparation of 6-substituted 2-pyrones via  $\beta$ ,  $\beta$ -dichloroacrolein  
and its chloroacetals. Izv. AN SSSR. Ser.khim. no.1:73-77 Ja  
'64. (MIRA 17:4)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ZAKHARKIN, L.I.; ZHIGAREVA, G.G.

Dimerization of isoprene on complex nickel catalysts. Izv. AN  
SSSR. Ser.khim. no.1:163-169 Ja '64. (MIHA 17:4)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

8/0062/64/000/002/0393/0393

ACCESSION NR: AP4019021

AUTHOR: Zakharkin, L. I.; Kovredov, A. I.

TITLE: Synthesis of ethane-1,1- and ethane-1,2-diboric acids from acetylene and diborane

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 2, 1964, 393

TOPIC TAGS: ethane diboric acid, diborane, dichloro borane, boron chloride, diborane polymer, diboric acid acetylene

ABSTRACT: The authors report the preparation of the above acids by the interaction of acetylene and diborane dissolved in ether or tetrahydrofuran forming a polymer  $(C_2H_4B_2)_x$  which, when heated with  $BCl_3$  to 180-200°C, produces a good yield of two bis-(dichloroboro)ethanes in an approximate proportion of 1:1, namely bis-1,1-(dichloroboro)ethane and bis-1,2-(dichloroboro)ethane. Hydrolysis of the above produced corresponding ethanediboric acids. Their characteristics are given. Orig. art. has: no figures, 2 formulas, no tables.

Card 1/2



ACCESSION NR: AP4019021

ASSOCIATION: Institut elementoorganicheskikh soedineniy AN SSSR  
(Institute of Elementoorganic Compounds, AN SSSR)

SUBMITTED: 29Nov63

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: OC

NO REF SOV: 001

OTHER: 001

2/2

Card

ZAKHARKIN, L.I.; KHORLINA, I.M.

Reduction of some derivatives of acids to aldehydes with sodium diisobutylaluminum dihydride. Izv. AN SSSR. Ser.khim. no.3: 465-469 Mr '64. (MIRA 17:4)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ZAKHARKIN, L.I.; MASLIN, D.N.; GAVRILENKO, V.V.

Reduction of organic compounds by sodium aluminum hydride in hydrocarbon media. Izv. AN SSSR. Ser.khim. no.3:561-564 Mr '64.

(MIRA 17:4)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ACCESSION NR: AP4025016

s/0062/64/000/003/0582/0582

AUTHOR: Zakharkin, L. I.; Stanko, V. I.; Chapovskiy, Yu. A.

TITLE: Metallizing of B sub 10 C sub 2 H sub 12 (baren) and its derivatives with sodamide

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 3, 1964, 582

TOPIC TAGS: metallizing, butyllithium, sodamide, baren, baren aryl derivatives, baren alkyl derivatives, baren ring, baren ring stability, sodium amide, metal spraying

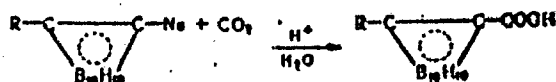
ABSTRACT: Like butyllithium, sodamide will easily metallize baren as well as its aryl and alkyl derivatives at the nucleus of the carbon atom;



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a quantitative yield of the sodium derivative will be obtained upon using an excess of sodamide. Further carbonylation will yield the corresponding acids.



Sodamide treatment will result in the formation of monobarenylsodium only, which is in contrast to treatment with butyllithium. Such metallization indicates the ease with which the proton is detached from the carbon atom of the baren ring, due apparently to the great stability of the barenyl anion. Orig. art. has: 4 formulae.

ASSOCIATION: AN, SSSR

SUBMITTED: 28Nov63

DATE ACQ: 17Apr64

ENCL: 00

SUB CODE: GC

NO REF SCV: 001

OTHER: 000

Card 2/2

ZAKHARKIN, L. I.; CHAPOVSKIY, Yu. A.

Cleavage of C-C bonds in the derivatives of "barencarboxylic acids."  
Izv AN SSSR Ser Khim no. 4:772 Ap '64. (MIRA 17:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ZAKHAROV, L.I.; STAMKO, V.I.; KLINOVA, A.I.

Exchange reactions of  $B_{10}$  and  $B_{12}$ -type decaborane complexes.  
Izv. AN SSSR Ser. khim. no. 5:917-918 1964. (MIRA 17.6)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ZAKHARKIN, L.I.; GAVRILENKO, V.V.; MASLIN, D.N.

Obtaining aldehydes in the reduction of carboxylic acid  
esters with aluminum hydride. Izv. AN.SSSR.Ser.khim. no. 5:  
926-928 My '64. (MIRA 17:6)



ZAKHARKIN, L.I.; STANKO, V.I.; BRATISOV, V.A.

Synthesis of some acetylenic alcohols. Izv. AN SSSR. Ser. Khim.  
no. 5:931-932 Ny '64. (MIRA 17:6)

1. Institut elementorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, I.I.; STANKO, V.I.; CHAPOVSKIY, Yu.A.

Anomalous reaction of phenylpropionic acid chloride with  
diacetonitrile dodecaborane. Izv. AN.SSSR.Ser.khim. no. 5:944  
My '64. (MIRA 17:6)

1. Institut elementorganicheskikh soyedineniy AN SSSR.

ZAKHARKIN, L.I.; SAVINA, L.A.

Synthesis of some unsaturated organoaluminum compounds. Izv.  
AN SSSR Ser. khim. no.7:1222-1225 J1 '64. (MIRA 17:8)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, L.I.; OKHOLOBYSTIN, O.Yu.; BILEVICH, K.A.

Exchange reactions of alkyls between organomagnesium compounds  
and halides. Izv. AN SSSR Ser. khim. no.7:1347-1349 J1. '64.  
(MIFA 17:8)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, L.I.; MASLIN, D.N.; GAVRILENKO, V.V.

Reduction of aromatic nitriles to aldehydes by means of  
sodium aluminum hydride. Izv. AN SSSR. Ser. khim. no.8:  
1511-1512 Ag '64. (MIRA 17:9)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ACCESSION NR: AP4039262

S/0078/64/009/006/1350/1357

AUTHOR: Zakharkin, L. I.; Maslin, D. N.; Gavrilenko, V. V.

TITLE: Reaction of boron trifluoride with sodium aluminum hydride.

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 6, 1964, 1350-1357

TOPIC TAGS: boron trifluoride, sodium aluminum hydride, dibrane, diborane synthesis

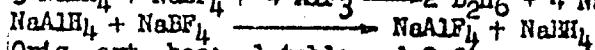
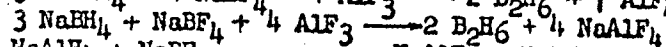
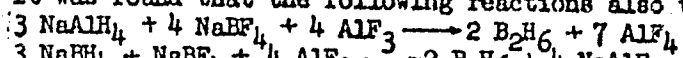
ABSTRACT: The purpose of this work was to investigate the interaction of boron trifluoride with sodium aluminum hydride as a possible method for the production of diborane. The work was conducted in dimethyl ether solutions of diethylene glycol at different temperatures and with the addition of constituents in different orders. It was established that upon the interaction of equimolar amounts of sodium aluminum hydride and boron trifluoride in diethylene glycol solutions with the normal order of addition of reagents, sodium borohydride is produced with a high yield. In this reaction there was a 90% yield of diborane. It is shown that this reaction proceeds according to two different paths depending on the temperature. At 25 C the reaction is:  $3\text{NaAlH}_4 + 7\text{BF}_3 \longrightarrow 2\text{B}_2\text{H}_6 + 3\text{NaBF}_4 + 2\text{AlF}_3$  and at 80 - 100 C the reaction is:  $3\text{NaAlH}_4 + 4\text{BF}_3 \longrightarrow 2\text{B}_2\text{H}_6 + 3\text{NaAlF}_4$

Card

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ACCESSION NR: AP4039262

It was found that the following reactions also take place:



Orig. art. has: 1 table and 2 figures.

ASSOCIATION: None

SUBMITTED: 15Apr63

ENCL: 00

SUB CODE: IC

NO REF S/W: 001

OTHER: 004

Card

2/2

**"APPROVED FOR RELEASE: 03/15/2001**

**CIA-RDP86-00513R001963520003-2**

**APPROVED FOR RELEASE: 03/15/2001**

**CIA-RDP86-00513R001963520003-2"**



ZAENARKIN, L.I.; KHORLINA, I.M.

Reduction of carboxylic acids to aldehydes with diisobutylaluminum  
hydride. Zhur. ob. khim. 34 no. 3:1029 Mr '64. (MIRA 17:6)

ZAKHARKIN, L.I.

Volatile amine complex of dialkyl magnesium. Zhur. ob. khim. 34,  
no.9:3125 S '64. (MIRA 17:11)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ACCESSION NR: AP4034541

S/0020/64/155/005/1119/1122

AUTHOR: Zakharkin, L. I.; Stanko, V. I.; Brattsev, V. A.; Chapovskiy, Yu. A.; Klimova, A. I.; Okhlobystin, O. Yu.; Poncmarenko, A. A. (Deceased)

TITLE: Synthesis and investigation of properties of a new class of organoboron compounds: B sub 10 C sub 2 H sub 12 (barene) and its derivatives.

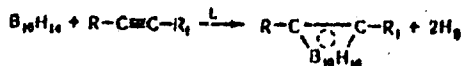
SOURCE: AN SSSR. Doklady\*, v. 155, no. 5, 1964, 1119-1122

TOPIC TAGS: barene, synthesis, organoboron compound, decaborane acetylenic compound reaction, B sub 10 C sub 2 H sub 12, barene derivative, sigma bond formation, hydrolysis stability, thermal stability, acid solvent stability, barene hydrocarbon, barene acetate, dihydroxymethylbarene, haloalkylbarene, dihalodialkylbarene, barene ester, barene ketone, barene ether, halogenation, methanolation, oxidation, Grignard reaction, cyclization

ABSTRACT: The reaction of decaborane with different acetylenic compounds was studied in detail. It was found that in the presence of materials which form complexes of the type  $B_{10}H_{12}L_2$  (L " ligand) with decaborane, a new class of compounds is formed:  $B_{10}C_2H_{10}RR'$ , barenes.

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ACCESSION NR: AP4034541



The reaction is two stage:

1.  $B_{10}H_{12} + \frac{1}{2}2L \rightarrow B_{10}H_{10}L_2 + H_2$
2.  $B_{10}H_{10}L_2 + RC \equiv CR_1 \rightarrow B_{10}C_4H_{10}RR_1 + 2L + H_2$

where  $L = CH_3CN, (C_2H_5)_2S, (C_2H_5)_3As, CHON(CH_3)_3$ .

The hydrogen is given off between the  $B_5$  and  $B_{10}$  and the  $B_7$  and  $B_8$  in the complex, so the 12 atom system has no hydrogen bridges. X-ray, IR and chemical analyses show that two  $\sigma$ -bonds are formed on reaction with acetylenic compounds. The barenes are stable to hydrolysis, high temperatures and mineral acids. A number of barene compounds were synthesized and characterized: barene hydrocarbons, acetates of alcohols of the barene series, dihydroxymethylbarene, monoalkyl- and dihalodialkylbarenes, complex esters of barene acids and diacids, ketones and simple ethers. Some of the reactions involved are discussed: the reaction of alkyl or aryl-barenes with butyllithium with subsequent carbonation to form barene acids; substitution of the boron or carbon hydrogens with halogens; methanolation

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ACCESSION NR: AP4034541

of the acetates to form alcohols; oxidation of the alcohols to acids with  $\text{CrO}_3/\text{H}_2\text{SO}_4$ ; oxidation of hydroxymethylbarene with  $\text{KMnO}_4$  to form barene; Grignard reaction; cyclization during reaction of a complex decaborane with the chloranhydride of phenylpropionic acid to form a barene derivative. Orig. art. has: 1 table and 12 equations.

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademii nauk SSSR  
(Institute of Organometallic Compounds, Academy of Sciences, SSSR)

SUBMITTED: 08Oct63

ENCL: 00

SUB CODE: 00

NO REF SOV: 001

OTHER: 003

Card 3/3

**"APPROVED FOR RELEASE: 03/15/2001**

**CIA-RDP86-00513R001963520003-2**

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ASSOCIATION Institut elementar nauchnoykh soedineniy Akademii nauk SSSR

SUBMITTED: 06Feb64

ENCL: 00



ZAKHARKIN, L.I.; SAVINA, L.A.

Action of diisobutyl aluminum hydride on enamines. Izv. AN SSSR. Ser.  
khim. no.9:1695-1697 S '64. (MIRA 17:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ZAKHARKIN, L.I.; GAVRILENKO, V.V.; IVANOV, L.L.

Preparation of acetylenecarboxylic acids by the action of carbon dioxide on complex aluminum acetylides. Izv. AN SSSR Ser. khim. no.11:2066-2068 N '64 (MIRA 18:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ZAKHARKIN, L.I.; STANKO, V.I.; BRATTSEV, V.A.

Method of oxidation of phenylbarene and its derivatives. Izv. AN  
SSSR Ser. khim. no.11:2091-2093 N '64 (MIRA 18:1)

1. Institut elementoorganicheskikh soyeineny AN SSSR.

ZAKHARKIN, L.I.; KORNEVA, V.V.

Synthesis of 2-alkylidene- and 2-alkylcyclo-dodecanones. Izv.  
AN SSSR Ser. khim. no.12:2206-2208 D '64 (MIRA 18:1)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, L.I.; CHAPOVSKIY, Y.I.A.; STANKO, V.I.

Dissociation constants of some benzenecarboxylic acids. Izv. AN  
SSSR Ser. khim. no.12:2208-2209 D '64 (MIRA 18:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ZAKHARKIN, L.I.; PONOMARENKO, A.A. [deceased]; OKHLOBYSTIN, O. Yu.

Synthesis of hydrocarbon derivatives of barene. Izv. AN SSSR  
Ser. Khim. no.12:2210-2212 D '64 (MIRA 18:1)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, L.I.

Proof of the presence of carbon-carbon bond in barene carborane.  
Zhur. kh.khim. 3/4 no.12:4121 D '64 (MIRA 18:1)

IVANOV, L.L.; GAVRILENKO, V.V.; ZAKHAIKIN, L.I.

Reaction of monosubstituted acetylenes with lithium, potassium,  
and sodium aluminum hydrides and their alkyl derivatives of  
MALR<sub>(4-n)H<sub>n</sub></sub> type. Izv. AN SSSR Ser. khim. no.11:1989-1998 N '64  
(MIRA 18:1)

1. Institut elementoorganicheskikh soedineniy AN SSSR.



ZAKHARKIN, L.I.; KALININ, V.N.

Transformation of baranes into salts of dicarbaundecaborane derivatives  
by the action of amines. Dokl. AN SSSR 163 no.1:110-112 J1 '65.

(MIRA 18:7)

1. Institut elementoorganicheskikh soedineniy AN SSSR. Submitted  
December 31, 1964.

ZAKHARKIN, L.L.

Metalation of barene and its derivatives with alkali metal an des  
in liquid ammonia. Izv. AN SSSR Ser, khim. no.1:158-160 '65.

(MIRA 18:2)

1. Institut elementoorganicheskikh sovedineniy AN SSSR.

"APPROVED FOR RELEASE: 03/15/2001

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APPROVED FOR RELEASE: 03/15/2001


CIA-RDP86-00513R001963520003-2"

ZAKHARKIN, L.I.; SOROKINA, L.P.; IVANOV, L.L.

Preparation of complex aluminum acetylides from complex aluminum  
amides and  $\alpha$ -acetylenes. Izv. AN SSSR Ser. khim. no.1:180-182  
'69. (MIRA 18:2)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, I.I.; OKHIDCHISTIN, O.Yu.; KUDRYAVTSOV, P.V.; BIEVICH, K.A.

Exchange of organic groups in the systems  $n\text{-C}_5\text{H}_{11}\text{MgBr-X-}$   R.  
Izv. AN SSSR Ser. khim. no.1:182-184 '66.

(MIRA 18:2)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ZAKHARKIN, I.I.; KALININ, V.N.

Reaction of azines with barones. Izv. AN SSSR. Ser. khim. no.3:  
579 '65. (MIRA 18:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

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1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840.

UJ/0020/H.../0020571/0580

АВТОРЫ: Бабаркин, В. П.; Калашин, В. А.

11. Nitration of phenylborane, phenylborane carboxylic acid, and phenylneoborane

SOURCE: AN SSSR. Doklady, v. 164, no. 3, 1965, 577-580

TOPIC TAGS: boranorganic compound, nitration phenylborane, phenylneoborane

ANALYSIS: The nitration of phenylborane, phenylborane carbonic acid, and phenylborane carbonic acid dimethyl ester was carried out in benzene. The nitration was carried out in  $\text{CCl}_4$  at room temperature with a 1:3 mixture of  $\text{HNO}_3$  and  $\text{H}_2\text{SO}_4$ .

The investigation is an extension of previous studies on this system, by L. I. Zakharenko, I. A. Kuznetsov, and V. A. Kish, 1961, 1962. Melting points and reaction yields for the synthesized compounds are presented. It is concluded that the carboxylic acid, neopentanoic acid, possesses electron-acceptor properties. The electron-acceptor properties of the compound are attributed to the presence of the carboxylic group in the molecule.

Address: Institut elementoorganicheskikh soedineniy, Akademi nauk SSSR





ALEKSANDROV, A.Yu.; BREGADZE, V.I.; GOL'DANSKIY, V.I.; ZAKHARKIN, L.I.;  
OKHLOBYSTIN, O.Yu.; KHRAPOV, V.V.

Organotin derivatives of barones studied by means of Krasbauer  
spectroscopy. Dokl. AN SSSR 165 no.3:593-596 N '65.

(MIRA 18:11)

1. Institut khimicheskoy fiziki AN SSSR i Institut elemento-  
organicheskikh soyed'neniy AN SSSR. 2. Chlen-korrespondent  
AN SSSR (for Gol'danskiy).

GAVRILENKO, V.V.; IVANOV, I.L.; ZAKHARKIN, L.I.

Reactions complex aluminum acetylides with carbonyl compounds.  
Zhur. ob. khim. 35 no.4:635-638 . Ap '65.

(MIRA 18:5)

ZAKHARKIN, L.I.; GAVRILENKO, V.V.

Synthesis of aluminum trihydride complexes of  $\text{MAIRH}_3$  structure.  
Izv. AN SSSR. Ser. khim. no.4:644-49 '65. (MIRA 18:5)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, L.I.

Splitting of a C-C bond in ketones and alcohols of the barans series under the action of bases. Dokl. AN SSSR 162 no.4:817-820 Je '65. (MIRA 18:5)

1. Institut elementoorganicheskikh soedineniy AN SSSR. Submitted November 17, 1964.

ZAKHARKIN, L.I.; KHORLINA, I.M.

Reduction of  $\alpha$ -oxides by diisobutylaluminum hydride and the  
mechanism of action on  $\alpha$ -oxides of simple aluminum hydrides.  
Izv. AN SSSR. Ser. khim. no.5:862-870 '65. (MIRA 18:5)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, L.I.; SOROKINA, L.P.

Some transformations of 6-phenyl-2-pyrone. Izv. AN SSSR. Ser. khim.  
no.5:870-876 '65. (MIRA 18:5)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

STANKO, V.I.; CHAPOVSKIY, Ya.A.; BRATTSEV, V.A.; ZAKHARKIN, L.I.

Chemistry of decaborane and its derivatives. Usp. Khim. 34  
no.6:1011-1037 1965. (MIRA 1817)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, L.I.; KALININ, V.N.

Sequence of substitution in electrophilic halogenation of barenes  
(carboranes). Izv. AN SSSR. Ser. khim. no.7:1311 '65. (MIRA 18:7)

1. Institut elementoorganicheskikh soedineniy AN SSSR.



ZAKHARKIN, L.L.; KOPYLOV, V.V.; SOROKINA, L.P.

Action of diisobutyl aluminum chloride on some ketones. Izv. AN SSSR.  
Ser. khim. no. 7: 1194-1197 '65. (MIRA 18:7)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, L.I.; PODVISOTSKAYA, L.S.

"Positive" character of halogen atoms in C-halobenzenes. Izv.  
AN SSSR. Ser. khim. no.8:1464-1466 '65. (MIRA 18:9)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, L.I.; ZHIGAREVA, G.G.

Alkaline cleavage of 1- and 4-cyclooctanecarboxylic acids to  
azelaic acid. Izv. AN SSSR. Ser. khim. no.8:1497-1499 '65.

(MIRA 18:9)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ZAKHARKIN, L.I.; SAVINA, A.A.

New synthesis of arylcyclopropanes. Izv. AN SSSR. Ser. khim.  
no.8:1508-1509 '65. (MIRA 16:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ZAKHARKIN, L.I.; GAVRILENKO, V.V.; IVANOV, I.L.

Preparation of complex aluminum acetylides of the type  $\text{MAIR}^1$   
(4-n)  $(\text{C}\equiv\text{CR})$  and their solvates. Zhur. ob. khim. 35  
no.9:1676-1680<sup>n</sup> S '65. (MIRA 18:10)

ZAKHARKIN, I.I.; KALININ, V.N.

Cleavage of phenylneoterephthalene by hydrazine into a phenylneo-  
dicarboundecaborane anion. Zhur. ob. khim. 35 no.5:1691.  
1992 S '65. (MIRA 18:10)

ZAKHARKIN, I.I.; KALININ, V.N.; TODVILLOVSKAYA, L.S.

Preparation of E-hydroxybarynes by the action of nitric acid  
on barynes. Izv. AN SSSR. Ser. khim. no.9:1913 '65.  
(MIRA 18:9)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

L 2558-66 EWT(m)/EPT(c)/EWP(j)/EWA(c) RPL JW/RM

ACCESSION NR: AP5025131

UR/0079/65/035/010/1882/1884  
547.244

AUTHOR: Zakharkin, L. I.; Kalinin, V. N.

TITLE: Synthesis of carboran- and neocarboran-amines

SOURCE: Zhurnal obshchey khimii, v. 35, no. 10, 1965, 1882-1884

TOPIC TAGS: carborane, neocarborane, amine

ABSTRACT: Carboran- and neocarboran-amines with the  $NH_2$ -group at one of the C atoms of the carborane- or neocarborane ring have been synthesized for the first time. The synthesis proceeds in two steps: treatment of the respective and chlorides with sodium azide and heating of the azides formed with concentrated sulfuric acid. Carboran- and neocarboran-amines are soluble in concentrated  $H_2SO_4$ . Carboranamines are weak bases due to the electron acceptor effect of the carborane ring and to steric factors. Orig. art. has: 1 table. [BO]

ASSOCIATION: none

SUBMITTED: 15Mar65

ENCL: 00

SUB CODE: 0000

NO REF SOV: 000

OTHER: 000

ATD PRESS: 7108

Card 1/1



ZAKHARKIN, I.I.; L'VOV, A.I.; PRIVILITSEVAYA, I.G.

Electron-acceptor character of the redoxone (neocarbonyl) system.  
Izv. AN SSSR.Ser.khim. no.10:1905-1907 '65.

(MIRA 18:19)

1. Institut elementoorganicheskikh sovedcheniy AN SSSR.

L 8149-66 ENP(j)/ENT(m)/EPF(c) RPL PW/JY/EM  
 ACC NR: AP5027694 SOURCE: CODE: UR/0062/65/006/010/1905/1907  
 ORG: Institute of Organo-elemental Compounds, Academy of Sciences SSSR  
 (Institut elementoorginicheskikh sovedinoniy, Akademii nauk SSSR)  
 TITLE: Electron acceptor nature of the neobarene (neocarborane) system  
 SOURCE: AN SSSR, Izvestiya. Seriya Khimicheskaya, no. 10, 1965  
 1905-1907  
 TOPIC TAGS: organoboron compound, chemical reaction, chemical bonding  
 ABSTRACT: The possibility of rupturing the C-C bond in neobarene compounds was investigated. Electron acceptor properties in the neobarene system were found to be weaker than in the barene system. For instance, potassium phenylneoborene carboxylate was not separated between the carbonyl carbon and the barene ring in neoborenyl ketones. was readily split on treatment with lithium ethylate in ethanol, resulting in the intermediate formation of a neoborenyl anion. Neoborenyl ketones were readily reduced with lithium aluminum hydride to the carbinol. An isopropyl ketone with a carbon atom of the neoborene ring exhibits positive properties; it is readily exchanged

Card 1/2

UDC: 542.91+547.21

L 8149-66

ACC NR: AP5027694

for hydrogen when the iodoneobarene compound is treated with alcoholic KOH. Synthesis of ketones of the neobarene series was effected by reacting lithium derivatives of neobarene with acid chlorocanhydrides. Orig. art. has: 11 equations.

SUB CODE: 00/ SUBM DATE: 01Mar65/ ORIG REF: 001/ JTH REF: 002

nw

Card 2/2

L 8148-66

ACC NR: AP5027696

SOURCE CODE: UR/0062/65/000/010/1913/1914

AUTHOR: Zakharkin, L. L.; Okhlobystin, O. Yu.; Semin, G. K.;  
Babushkina, T. A. a. w.

ORG: Institute of Organometallic Compounds, Academy of Sciences SSSR  
(Institut elementoorganicheskikh soedineniy. Akademii nauk SSSR)

TITLE: Exchange of hydrogen for chlorine in the barene-CCl<sub>4</sub> or -CHCl<sub>3</sub>  
system by the action of aluminum chloride

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 10, 1965,  
1913-1914

TOPIC TAGS: organoboron compound, chemical reaction, halogenation,  
exchange reaction, chlorinated organic compound

ABSTRACT: When a solution of barene in carbon tetrachloride or  
chloroform was boiled in the presence of aluminum trichloride, the  
hydrogen atoms of the barene were readily substituted by chlorine atoms  
to form mono-, di- and trichlorobarenes. Similar exchange of hydrogen  
for chlorine occurred in vinylbarene and methylbarene. Probable  
mechanism for these exchanges is discussed. Orig. not. sent. Documentation.

SUB CODE: OC/ SUBM DATE: 21Jul65/ ORIG REF: 001/ OTH REF: 002

nm  
Card 1/1

UDC: 541.124.661.718.4



L 8085-66

ACC NR: AP5027697

has: 1 equation.

SUB CODE: OC/ SUBM DATE: 22Jul65/ ORIG REF: 000/ OTF REF: 000

Card 2/2 (30)

ZAKHARIN, L.I.; KALININ, V.N.

Transformations of phenyltarane and phenylneclarens. Izv.  
AN SSSR, Ser. khim. no. 12: 2208-2209 '65.

(MIRA 18:22)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.  
Submitted April 9, 1965.

I 15305-66 ENT(m)/EMP(t)/ESP(b)/EWA(h) IJP(c) JD/JG  
ACC NR AP0002809 SOURCE CODE: UR/0078/65/011/001/0013/0019

AUTHORS: Zakharkin, L. I.; Maslin, D. N.; Gavrilenko, V. V.

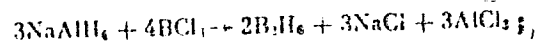
ORG: none

TITLE: Preparation of diborane from sodium aluminum hydride and boron halides in  
etheral and hydrocarbon media

SOURCE: Zhurnal neorganicheskoy khimii, v. 11, no. 1, 1966, 13-19

TOPIC TAGS: diborane, borohydride, boron compound, inorganic synthesis

ABSTRACT: Four possible methods for preparing diborane (I) were investigated:  
a) reaction of boron trichloride (II) with sodium aluminum hydride (III) according to  
the equation



b) reacting boron trifluoride (IV) with III in various ethers and hydrocarbons as  
solvents; c) two-step synthesis, the first step being reaction of III with LiCl or  
AlCl<sub>3</sub>, and the second--the addition of ether solution of IV; d) also a two-step  
synthesis involving first the preparation of a reaction mixture of AlCl<sub>3</sub> with sodium  
borohydride (V) and then a reaction of this solution with ethereal V. This study is  
an expansion of the work published earlier by the authors (Zh. neorg. khimii, 7,

Card 1/2

UDC: 546.272.0



E 15305-56

ACC NR: AP6002809

1350, 1964) in which I was obtained by reacting III with IV in diglyme. Reactions were performed under a stream of pure nitrogen which, on leaving the reaction vessel, was passed through acetone traps for collecting the diborane. It was observed that: 1) reaction of (a) proceeds with a number of intermediates; 2) high yields of I are obtained from reactions a and b if 5-10% of diglyme are added to the ether or heptane solvent; 3) reaction c produces I in large amounts; 4) reaction of III with IV in THF results in high yields of I; 5) addition of AlR<sub>3</sub> to diglyme solutions of III or V, followed by addition of IV, permits utilization of total boron content. Orig. art. has: 1 figure and 20 equations.

SUB CODE: 07/

SUBM DATE: 08Jun64/

ORIG REF: 001/

OTH REF: 007

Card 2/2 YNC

L 36922-66 EWT(m)/EWP(j) WW/RM

ACC NR: AP6008506

SOURCE CODE: UR/0062/66/000/001/0151/0153

AUTHOR: Zakharkin, L. I.; L'vov, A. I.

ORG: Institute of Heteroorganic Chemistry, Academy of Sciences, SSSR (Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR)

TITLE: Synthesis of ketones of the barene series

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 1, 1966, 151-153

TOPIC TAGS: chemical synthesis, carboxylic acid chloride, barene series, ketone, organoboron compound

ABSTRACT: Because ketones of the barene series, which contains a carbonyl group linked with the carbon atom of the barene nucleus, are virtually unstudied, the synthesis of only two such ketones having been reported, the authors investigated their synthesis. It is found that ketones of the barene series can be readily synthesized under the effect of lithium derivatives of barenes on the acid chlorides of carboxylic acids. The acid chlorides of aromatic, aliphatic, and heterocyclic acids are introduced into the reaction. The yields of ketones are 50-95% of the theoretical. The 15 ketones synthesized by this method are presented in Table 1. Symmetric and asymmetric bis-barene ketones are synthesized when the acid chlorides of barene carboxylic acids are used. Orig. art. has: 1 table.

Card 1/2

UDC: 542.91+661.718.4

L 36922-66

ACC NR: AP6008506

Table 1. Ketones synthesized by the authors.

| R                             | R'   | m.p.<br>°C | Found, % |      |       | Calculated, % |      |       | Frequen-<br>cies of<br>C=O groups,<br>cm <sup>-1</sup> |
|-------------------------------|--|------------|----------|------|-------|---------------|------|-------|--|
|                               |  |            | C        | H    | N     | C             | H    | N     |  |
| CH <sub>3</sub>               | C <sub>6</sub> H <sub>5</sub>                                    | 67         | 45.66    | 6.98 | 40.36 | 45.79         | 6.86 | 41.25 | 1687   |
| CH <sub>3</sub>               | p-CH <sub>3</sub> -C <sub>6</sub> H <sub>4</sub>                 | 101--102   | 48.48    | 7.51 | 38.71 | 47.81         | 7.24 | 39.16 | 1679   |
| CH <sub>3</sub>               | p-Cl-C <sub>6</sub> H <sub>4</sub>                               | 127        | 40.68    | 5.76 | 36.13 | 40.47         | 5.73 | 36.46 | 1685   |
| CH <sub>3</sub>               | C <sub>6</sub> H <sub>5</sub> CB <sub>10</sub> H <sub>10</sub> C | 150        | 35.95    | 7.02 | 53.22 | 35.64         | 6.93 | 53.56 | 1718   |
| CH <sub>3</sub>               | CH <sub>3</sub> CB <sub>10</sub> H <sub>10</sub> C               | 144--145   | 25.14    | 7.88 | 62.49 | 24.53         | 7.65 | 63.15 | 1713   |
| CH <sub>3</sub>               | C <sub>6</sub> H <sub>5</sub>                                    | 40--41     | 48.95    | 6.75 | 40.06 | 48.14         | 6.61 | 39.42 | 1690   |
| CH <sub>3</sub> -CH           | p-Cl-C <sub>6</sub> H <sub>4</sub>                               | 67--68     | 45.51    | 6.97 | 41.22 | 45.79         | 6.86 | 41.25 | 1731   |
| CH <sub>3</sub> -CH           | CH <sub>3</sub>  | 46--47     | 49.54    | 7.44 | 37.10 | 49.61         | 7.63 | 37.25 | 1725   |
| C <sub>6</sub> H <sub>5</sub> | i-C <sub>3</sub> H <sub>7</sub>                                  | 76--77     | 55.68    | 6.55 | 33.32 | 55.51         | 6.21 | 33.34 | 1688   |
| C <sub>6</sub> H <sub>5</sub> | C <sub>6</sub> H <sub>5</sub>                                    | 118--119   | 50.37    | 5.67 | 29.98 | 50.19         | 5.33 | 30.14 | 1692   |
| C <sub>6</sub> H <sub>5</sub> | p-Cl-C <sub>6</sub> H <sub>4</sub>                               | 81.5       | 57.5     | 6.94 | 31.20 | 56.76         | 6.55 | 31.16 | 1702   |
| C <sub>6</sub> H <sub>5</sub> | p-CH <sub>3</sub> -C <sub>6</sub> H <sub>4</sub>                 | 143.5      | —        | —    | 29.39 | 48.75         | 6.18 | 29.28 | —  |
| C <sub>6</sub> H <sub>5</sub> | p-NO <sub>2</sub> -C <sub>6</sub> H <sub>4</sub>                 | 128--129   | 49.49    | 6.15 | —     | 49.65         | 5.77 | —     | —  |
| C <sub>6</sub> H <sub>5</sub> | Furyl  | 217        | 43.99    | 6.60 | —     | 43.74         | 6.48 | 43.16 | 1712   |
| C <sub>6</sub> H <sub>5</sub> | C <sub>6</sub> H <sub>5</sub> CB <sub>10</sub> H <sub>10</sub> C | —          | —        | —    | —     | —             | —    | —     | —  |

\* Found: N 3.70%. Calculated: N 3.79%

SUB CODE: 07/ SUBM DATE: 10May65/ ORIG REF: 001/ OTH REF: 000

Card

2/2 *ll*

ACC NR: AP7012426

SOURCE CODE: UR/0079/66/036/010/1734/1735

AUTHOR: Okhlobystin, O. Yu.; Zakharkin, L. I.

ORG: none

TITLE: Influence of coordination on the ability of organocadmium compounds for metallation reaction

SOURCE: Zhurnal obshchey khimii, v. 36, no. 10, 1966, 1734-1735

TOPIC TAGS: organocadmium compound, metallation, coordination chemistry, organolithium compound, organomagnesium compound

SUB CODE: 07

ABSTRACT: The metallation of phenylacetylene with diethylcadmium in the presence of various electron donor aprotic complex formers was studied to determine whether the general principle of increasing nucleophilic activity of the metal-carbon bond in coordination is applicable to such relatively nonreactive substances as alkyl derivatives of cadmium. It was found that the nucleophilic activity of diethylcadmium can be varied in very wide range in the selected model reaction by suitable selection of the complex-forming solvents. The rate of metallation of phenylacetylene by diethylcadmium depends on the complex-forming ability of the medium: in diethylether the reaction virtually does not take place, while in the presence of an equimolar amount of N,N'-tetramethylethyl-

Card 1/2

UPC: 541.49:541.957:546.48

0932 1368

ACC NR: AP7012426

endiamine, which forms a complex with diethylcadmium, metallation is extremely vigorous. Other complex formers tested occupy intermediate positions (arranged according to increasing acceleration of the reaction): dimethoxyethane, dimethylformamide, dimethylsulfoxide, hexamethyltriimidophosphate, and alpha, alpha-dipyridyl. In the presence of sufficiently strong complexformers, the metallating ability of diethylcadmium was found to be close to the metallating ability of the corresponding organomagnesium and organolithium compounds.

Orig. art. has: 1 table. [JPRS: 40,422]

2/2

L 45719-66 EWT(m)/T/EAP(t)/ETI (IP(c)) JD/WW/JW/JG/PND/JH  
 ACC NR: AP6025697 SOURCE CODE: UR/0078/66/011/005/0977/0980

AUTHOR: Zakharkin, L. I.; Gavrilenko, V. V.

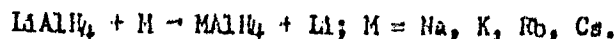
ORG: none

TITLE: Effect of alkali metals on lithium aluminum hydride

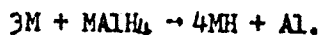
SOURCE: Zhurnal neorganicheskoy khimii, v. 11, no. 5, 1966, 977-930

TOPIC TAGS: lithium aluminum hydride, alkali metal

ABSTRACT: The reactions of lithium aluminum hydride with alkali metals were studied in ether solvents (diethyl ether, dibutyl ether, diethylene glycol diethyl ether and tetrahydrofuran). The reactions of  $\text{LiAlH}_4$  with sodium and potassium were also studied. With sodium, potassium, rubidium and cesium, metallic lithium separates and the corresponding alkali aluminum hydride is formed:



This is an equilibrium reaction. A side reaction is the hydrogenation of the alkali metal of the aluminum hydride, as follows:



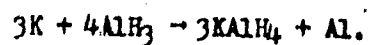
Card 1/2

UDC: 546.623'34'11+546.311

L 45719-66

ACC NR: AP6025697

Another side reaction is thought to be hydrogenation by aluminum hydride (formed by the decomposition  $\text{MAlH}_4 \rightleftharpoons \text{MH} + \text{AlH}_3$ ):



The reaction of exchange of the alkali metal with  $\text{LiAlH}_4$  is faster than the hydrogenation reaction.

SUB CODE: 07/ SUBM DATE: 18Sep64/ ORIG REF: 001

Card 2/2 ULR

28951  
S/138/61/000/010/007/009  
A051/A129

11. 2320  
AUTHORS:

Zakharkin, O.A., Koldayeva, T.N., Lisogurskiy, Z.I., Skovorodkin, P.A., Polyak, M.A., Yur'yeva, A.K.

TITLE:

Some peculiarities of the preparation of rubber mixes in a two-speed rubber mixer

PERIODICAL:

Kauchuk i rezina<sup>20</sup> no. 10, 1961, 39 - 41

TEXT:

Experiments were conducted on the new two-speed rubber mixer DPC-140 (DRS-140) manufactured at the Kiyevskiy mashinostroitel'nyy zavod (Kiyev Machine-Building Plant) "Bol'shevik", according to designs of the NIIMHIMash. Its rotors have 19.76/16.76 and 39.52/33.5 rpm, respectively. The capacity of the mixing chamber is 245 liters, the size of the spaces between the blades of the mixers and the walls of the mixing chamber 6-7 mm. Results of the experiments showed that when preparing casing-breaker mixes in the rubber mixer at 40 rpm a mixing duration of 1.5 min without taking into account the loading and unloading, and a specific pressure of the upper press of 3.7 kg/cm<sup>2</sup>, the volume of the load may be brought to 165 liters without impairing the quality of the mix. The loading coefficient of the chamber of the DRS-140 rubber mixer is 65%. Thus

Card 1/2

Some peculiarities of the preparation ...

28951  
S/138/61/000/010/007/009  
A051/A129

the effect of the loading volume was checked and the optimum value (165 l) confirmed for the casing and breaker mixes based on 100% NR and combinations of it with CKE (SKB), also for tread mixes based on 100% butadiene-styrene rubbers. The 1.5 min duration time is recommended for the casing and breaker mixes in one stage at 40 rpm of the rotor with an introduction of sulfur in the 84-inch rollers. Conditions for preparing tread mixes based on 100% butadiene-styrene rubbers in two cycles are recommended. The possibility of using the PC-2 (RS-2) rubber mixers available at the plant is pointed out in order to accomplish the second cycle of mixing of the tread mixes as well as introduction of sulfur and accelerators. The following persons took part in the work: J.J. Gavshinov, A.S. Savina, Yu.A. Aleksandrov, A.N. Semenova. There are 4 tables and 10 Soviet-bloc references.

ASSOCIATION: Yaroslavskiy shinny zavod (Yaroslavl' Tire Plant)

Card 2/2



ACCESSION NR: AP4038909

8/0138/64/000/005/0055

AUTHORS: Vasil'yev, G. Ye.; Yemel'yanov, D. P.; Epahteyn, V. G.; Polyak, M. A.; Zakharkin, O. A.; Yartsev, V. A.; Gollkin, V. B.

TITLE: Improving the quality of rubber compounds by means of carbon black master batches

SOURCE: Kauchuk i rezina, no. 5, 1964, 53-55

TOPIC TAGS: carbon black, SKS30ARKM rubber base, SKS30ARKM carbon black, gas furnace carbon black, furnace PM 70 carbon black, vulcanization index

ABSTRACT: This investigation involved three types of master batches: 1) a low-modular protector batch on SKS-30ARKM rubber base, containing (per 100 g rubber) 40 g channel carbon black and 20 g gas furnace carbon black; 2) a carcass batch on SKS-30ARK-15 and natural rubber base (in a 90:10 ratio), containing 40 g gas furnace carbon black; 3) a protector batch on SKS-30ARKM-15 rubber base, containing 50 g PM-70 carbon black. The batches were prepared in a laboratory mixer. Their discharge temperature was within the 160-1750 range. They were rolled and stored for 24 hours before being incorporated into a base mix. The tests for the physico-mechanical properties of the vulcanizates of rubber compounds prepared with these carbon black-rubber mixtures proved their superiority to the controls of the same

Card 1/2

ACCESSION NR: AP4038909

compositi: but prepared under standard procedures. The laboratory data were checked at the Yaroslavl' Tire Plant under factory conditions. Orig. art. has: 2 tables.

ASSOCIATION: Yaroslavskiy tekhnologicheskii institut, (Yaroslavl' Technological Institute); Bakinskiy shinnyy zavod (Baku Tire Plant); Yaroslavskiy shinnyy zavod (Yaroslavl' Tire Plant)

SUBMITTED: 00

DATE ACQ: 05Jun64

ENCL: 00

SUB CODE: MT

NO REF SOV: 003

OTHER: 005

Card 2/2

ALL NR: AP7008174

SOURCE CODE: UR/0138/67/000/001/0013/0014

AUTHOR: Epshteyn, V. G.; Zakharkin, O. A.; Polyak, M. A.; Yakhnovich, S. G.

ORG: Yaroslavl Institute of Technology (Yaroslavskiy tekhnologicheskii institut)

TITLE: Effect of additions of SKD-10 liquid polymer on the technological properties of compositions made with 100 percent of synthetic butadiene rubber

SOURCE: Kauchuk i rezina, no. 1, 1967, 13-14

TOPIC TAGS: synthetic rubber, butadiene rubber, polymer, vulcanized rubber, technical property/SKD 10 polymer

ABSTRACT: A method is proposed for improving the technological properties of compositions made with carboxylated butadiene rubber by introducing SKD-10 liquid polymer. The introduction of liquid polymer does not cause a deterioration of the physicomechanical characteristics of vulcanized rubber. Orig. art. has: 2 figures and 2 tables.

[NT]

SUB CODE: 11/SUBM DATE: 11Jul66/ORIG REF: 003/

Card 1/1

UDC: 678.762.2:678.062.004.12

POLYAK, M.A.; EPSHTEYN, V.G.; LISOGURSKIY, I.Z.; YUR'YEVA, A.K.;  
ZAKHARKIN, O.A.; KOLDAYEVA, T.N.; Prinimali uchastiye:  
SKOVORODKIN, P.A.; GAVSHINOV, I.I.; MINEYEV, A.N.; SUR'YANIKOVA,  
M.N.; BORISOV, N.V.

Studying the process of rubber mixture preparation in 20 r.p.m.  
rubber mixers. Kauch.i rez. 22 no.4:5-10 Ap '63.

(MIRA 16:6)

1. Yaroslavskiy shinnyy zavod i Yaroslavskiy tekhnologicheskii  
institut.

(Rubber)

(Rubber machinery)

VASIL'YEV, G.Ya.; YEMEL'YANOV, D.P.; EPSHTEYN, V.G.; POLYAK, M.A.;  
ZAKHARKIN, O.A.; YARTSEV, V.A.; GOLIKIN, V.B.

Improving the quality of rubber compounds by using carbon black  
master batches. Kauch. i rez. 23 no.5:53-55 My '64. (MIRA 17:9)

1. Yaroslavskiy tekhnologicheskii institut, Iakinskii shirnyy  
zavod i Yaroslavskiy shirnyy zavod.

ZAKHARKIN, V.; KLYUZHEV, A.; ARTAMONOV, N.

One brigade operates on two faces. Sov.shakht. 10 no.9:18-  
19 S '61. (MIRA 14:3)

1. Zamestitel'glavnogo inzhenera shakhty No.17 kombinata Vorkutaugol' (for Zakharkin).
2. Nachal'nik uchastka No.1 shakhty No.17 kombinata Vorkutaugol' (for Klyuzhev).
3. Pechorskiy nauchno-issledovatel'skiy ugol'nyy institut (for Artamonov).

(Pechora Basin--Coal mines and mining)

ZAKHARKIN, V.

Voluntary council of drivers and conductors. Avt.transp. 41  
no.4:11 Ap '63. (MIRA 16:5)

1. Predsedatel' mestnogo komiteta Kaliningradskoy avtokolony  
No.1115.

(Kaliningrad--Transportation, Automotive)

PIETROCHENKO, P.F.; SHAPIRO, I.I.; LUR'YE, G.B., prof.; DAYON, A.Ye., inzh.;  
ZAKHARKIN, V.I.; inzh.; MAYEROVA, A.V., inzh.; FELIKSON, N.I., inzh.;  
FILIPPOVA, L.A., inzh.; GVOZDEVA, A.N., inzh.; DOBRITS'INA, R.I.,  
 tekhn.red.

[General engineering time norms for the technical standardization of machining processes on grinding machines; small-lot and piece production] Obshcheshinostroitel'nye normativy vremeni dlia tekhnicheskogo normirovaniia rabot na shlifoval'nykh stenkakh; melkoseriinoe i edinichnoe proizvodstvo. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1960. 38 p.

(MIRA 14:1)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'noye byuro promyshlennykh normativov po trudu. 2. Glavnyy inzhener TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Petrochenko). 3. Zaveduyushchiy otделom mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Shapiro). 4. TSentral'noye byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Dayon, Zakharkin, Mayorova, Felikson, Filippova, Gvozdeva).

(Grinding and polishing)



ISAKOV, A.A. (Kemerovskaya oblast'); ZHURGARAYEV, Amangel'dy (Dzhambul'skaya obl., KazSSR); VLADIMIROV, A. (Asbest); FRIMAN, L.N. (Yaroslavl'); KILIMNIK, Ya.Ye. (Vinnitsa); TEREKHOV, I.A. (Skopin); AKDAULETOV, N.A. (pos.Mertuk. KazSSR); ZAKHARKIN, V.Ye. (pos.Rudtsev, Tul'skaya oblast'); SHESTOPAL, G.A. (Moskva); KOTIY, O.A. (Yaroslavl'); GAUKHMAN, V.A. (Moskva); LOPSHITS, A.M. (Yaroslavl'); SMERGUSHOV, S.A. (Yaroslavl'); GOTMAN, E.G. (Pechora); VETROV, K.V. (Putintsevo, Vostochno-Kazakhstanskoy obl.); MIKHELEVICH, Sh.Sh. (Daugavpils); SKOPETS, Z.A. (Yaroslavl'); RYBAKOV, L.M. (Yaroslavl'); CHEGODAYEV, A.I. (Gavrilov-Yam)

Problems. Mat.v shkole no.6:85-92 N-D '62. (MIRA 16:1)  
(Mathematics--Problems, exercises, etc.)

VILKOVYSKIY, A.L., prof.; ZAKHAR'IN, Yu.L., kand.biolog.nauk:

Metabolic role of the lung. Terap.arkh. 31 no.6:46-52  
Je '59. (MIRA 12:9)

1. Iz filiala legochnoy patologii rukovoditel' - chlen-  
korrespondent AMN SSSR prof.P.I.Yegorov) Instituta terapii  
AMN SSSR.

(PNEUMONECTOMY, eff.

on carbohydrate, fat & protein metab. (Rus))

(METABOLISM

eff. of pneumonectomy on metab. of various  
substances (Rus))

ACCESSION NR: AP4045517

P/0045/63/024/001/0003/0012

AUTHOR: Mazur, Yu.; Pentkovska, Ya.; Rafalovich, Ye.; Zakharko, V.

TITLE: On electric property of filiform silver single crystal investigated as a function of temperature

SOURCE: Acta physica polonica, v. 24, no. 1, 1963, 3-12

TOPIC TAGS: electrical resistance, filiform crystal, low temperature physics, cryogenics, filiform silver, monocrystal silver

ABSTRACT: The principle task of this experimental investigation was to determine the electric resistance of filiform silver single crystals at room temperature down to 1.77 - 4.2 K. The diffusion scattering of conduction electrons from the surface as a result of changes in whisker diameter was also under study. The effect of various temperatures on the specific resistance was compared for silver wires and whiskers. The authors describe the method and equipment used in this study and the conditions under which it was carried out, as well as the techniques used to prepare the specimens. The minimum of resistance for silver whiskers was determined.

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ACCESSION NR: AP4045517

ASSOCIATION: Zaklad Niskich Temperatur Instytutu Fizyki PAN, Wrocław  
(Cryogenic Laboratory of the Physics Institute of the Polish Academy of Sciences)

SUBMITTED: 18Oct62

ENCL: 00

SUB CODE: EC

NO REF SOV: 000

OTHER: 021

Card 12/2

ZAKHARKIN, L.I.; SAVINA, L.A.

Formation of cyclic hydrocarbons during the decomposition of  
some organoaluminum compounds. Zhur. ob. khim. 35 no. 1:1142-  
1146 J1 '65. (MIRA 18:8)

L 35358-66 EWT(1)/EWT(m)/T/EWP(t)/EPI IJF(c) JD

ACC NR: AF6017807

SOURCE CODE: UR/0058/66/000/001/D085/D085

AUTHOR: Zakharko, Ya. M.

TITLE: Dependence of the x ray luminescence yields of NaI(Tl) crystals on the intensity of the exciting radiation

SOURCE: Ref. zh. Fizika, Abs. 1D657

REF SOURCE: Visnyk L'vivs'k. un-tu. Ser. fiz. L'viv, 1964, 33-35

TOPIC TAGS: x ray effect, luminescence, activated crystal, luminescent crystal, recombination luminescence, radiative capture, excitation spectrum

ABSTRACT: The author investigated the dependence of x-ray luminescence yields in NaI(Tl) crystals on the x-ray intensity. It is established that the luminescence intensity is higher when excited with the harder harmonics in the presence of the Cu K $\alpha$  line than in the case when only the higher harmonics, separated from the continuous spectrum of the x-ray tube, are present. It is concluded that an appreciable role is played in processes of excitation of luminescence by soft x-radiation by the capture levels due to the prior history of the samples and by the nonradiative recombination centers connected with the surface. [Translation of abstract]

SUB CODE: 20

Card 1/1

"APPROVED FOR RELEASE: 03/15/2001

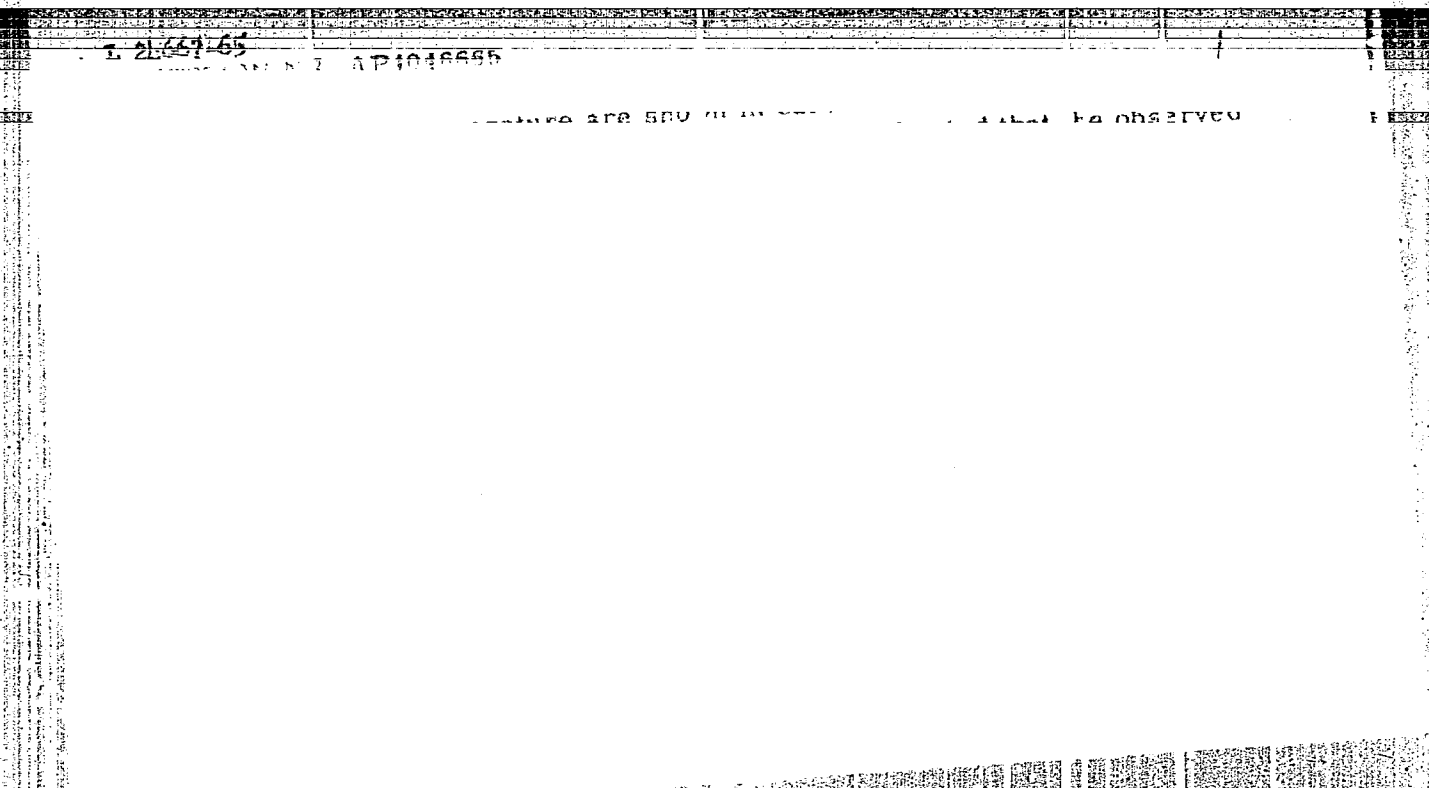
CIA-RDP86-00513R001963520003-2

APPROVED FOR RELEASE: 03/15/2001

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**APPROVED FOR RELEASE: 03/15/2001**

**CIA-RDP86-00513R001963520003-2"**

ZAKHARKO, Ya.M.; CHEPELEV, V.V.

Some effects of the interaction between X rays and NaI (Tl) crystals and their relation to scintillation spectrometry. Izv. AN SSSR Ser. fiz. 29 no.1:78-81 Ja '65.

(MIRA 18:2)

1. L'vovskiy gosudarstvennyy universitet im. Iv. Franko.

ACCESSION NR: 1965-1411

AUTHORS: Zakharko, Ya. M.; Chepelev, V. V. (Chepelev, V. V.)

TITLE: The resolving power of a NaI(Tl) scintillator in the region of soft x-rays and gamma rays

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 6, 1965, 653-656

TOPIC TAGS: sodium compound, optical resolution, scintillation detector, gamma detector, x-ray detection

ABSTRACT: Rectangular crystals 15 x 6 x 1 mm and in the form of discs 20--30 mm in diameter and 1--1.2 mm thick were cut from single crystals of NaI(Tl). The dependence of the square of the resolving power on the reciprocal of the mean amplitude of the total absorption peak for CuK and MoK x rays was investigated. The experimental results are compared with the theoretical results obtained in section 10, the Compton effect and the probability of production of secondary x rays, effects that are mainly

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L 1581-66

ACCESSION NR: AP5015441

responsible for inherent resolution, are inappreciable in this energy range. The light yield per absorbed quantum is thus the only parameter characterizing the scintillator at low energies. It is shown that the light yield of NaI(Tl) crystals is higher than that of CsI(Tl) crystals with Na<sup>+</sup>(1) crystals. The best results are obtained with maximum light yield - (high concentration of the activator impurity -- 1--2 wt. percent thallium iodide). Good results are obtained when using a natural cleavage face of the crystal covered by a thin layer of gold. The results of the experiments are presented in the form of a graph and a table. W. expressed his appreciation to G. S. Likhachev for carrying out some optical measurements and for taking part in the discussion of the results of the paper. Orig. ar. has: 2 formulas and 2 figures.

ASSOCIATION: L'vivs'kiy derzhuniverstet [L'vovskiy gosudarstvennyy universitet] (L'vov State University)

Card 2/3